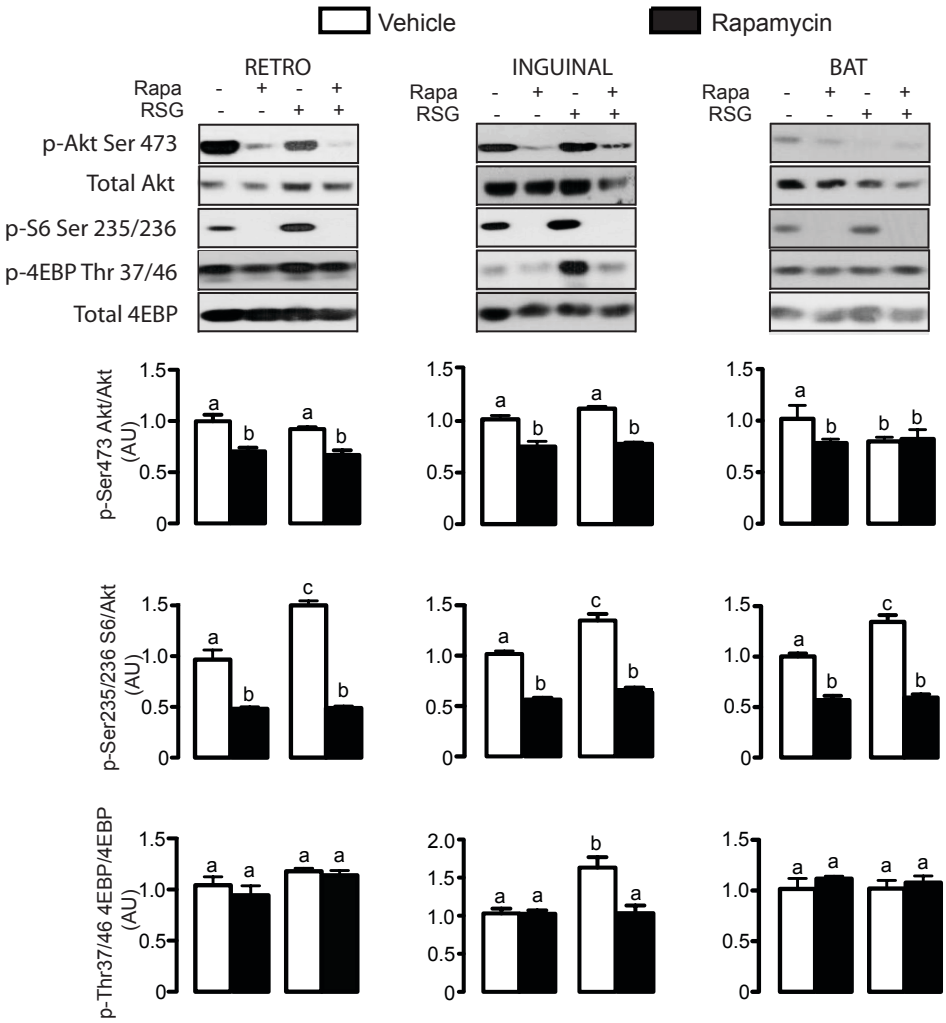
Supplemental table 1 – Antibodies used for immunoblotting

Antibodies		**Provider**
Primary antibodies	***Dilutions***	
S6 ribosomal protein	1:1000	Cell Signaling Technology (Beverly, MA, USA)
phospho-S6 ribosomal protein (Ser240/244)	1:5000	Cell Signaling Technology
Phospho-Akt (Ser473)	1:1000	Cell Signaling Technology
Phospho-Akt (Thr308)	1:1000	Cell Signaling Technology
Akt	1:1000	Cell Signaling Technology
AMPK	1:1000	Cell Signaling Technology
Phospho-AMPK (Thr172)	1:1000	Cell Signaling Technology
4EBP	1:5000	Cell Signaling Technology
Phospho-4EBP (Thr37/46)	1:5000	Cell Signaling Technology
Secondary Antibodies		
anti-goat immunoglobulin G conjugated to horseradish peroxidase	1:10000	Santa Cruz Biotechnology
anti-mouse immunoglobulin G conjugated to horseradish peroxidase	1:10000	Cedarlane (Burlington, ON, Canada)
anti-rabbit immunoglobulin G conjugated to horseradish peroxidase	1:20000	Cedarlane

Supplemental Table 2 – Primers used in Real-Time PCR

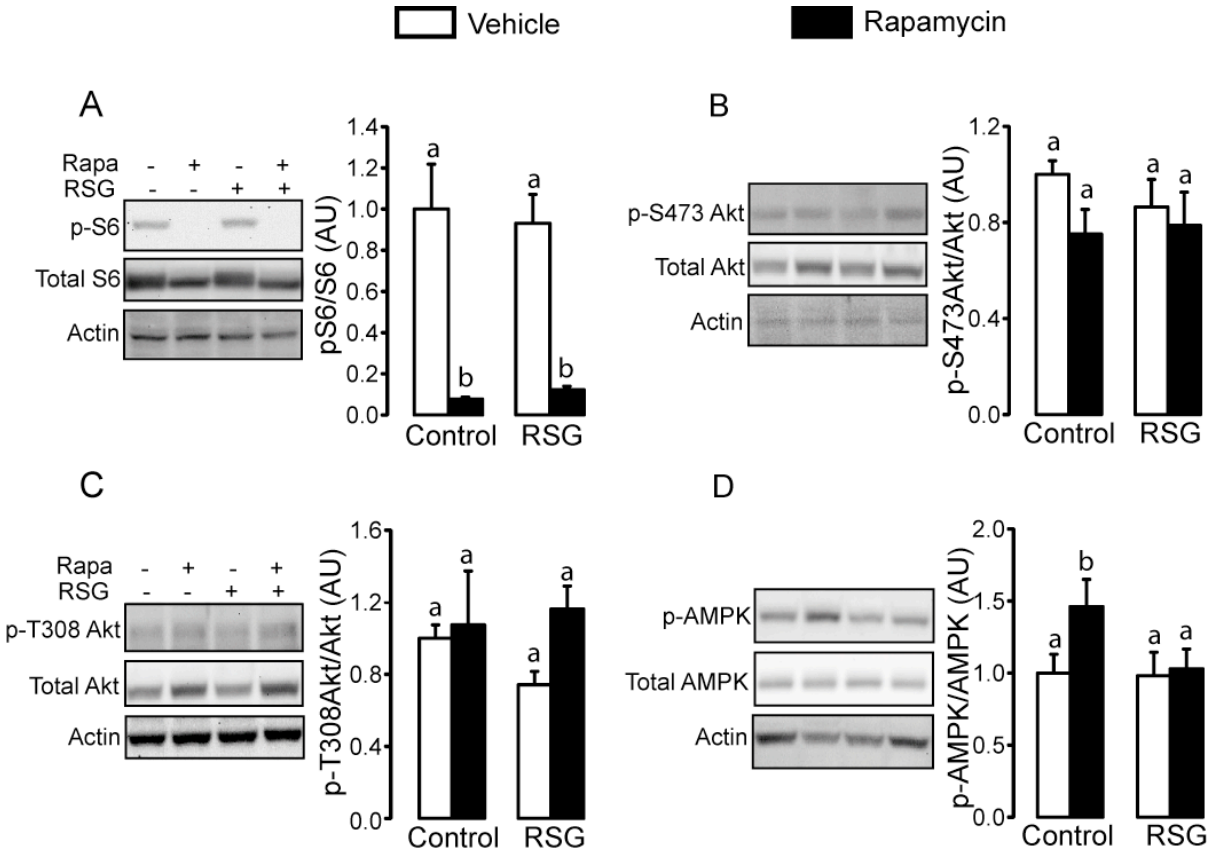
Rat	Forward	Reverse
FAS	GAGTCCGAGTCTGTCTCCCGCTTGA	GCCGTGAGGTTGCTGTTGTCTGTAG
FAT/CD36	AGTAATCTCAAATAACTGTACGTCG	CTGCAAGCACAGTATGAAATCATAA
FATP1	TCTGCGGCGCTTCGATGGCTAT	TTGTGGGGGTCTGCAATGGC
FABP4	ATGTGTGATGCCTTTGTGGG	CCCAGTTTGAAGGAAATCTC
GyK	CCTGTCCATTGAAATGTGTCATCC	GCCATGAAGCCATGACAATTAGTG
GLUT4	AGTGACTGGGACACTGGTCCTT	ACATTGTTGGCCAGCATAGC
LPL	AACCTTTGTGGTGATCCATGGA	CGAAATCCGCATCATCAGGA
PPARγ1	ATATAAGGGACTCGAGGAGG	TCAGCAACCATTGGGTCAG
PEPCK	TGGGTGATGACATTGCCTGG	TGGGTGATGACATTGCCTGG
SREBP1	ATGCTGGGGGTGAGACAGGA	AGGCAGGCTTGAGTACCCCA
36B4	TAAAGACTGGAGACAAGGTG	GTGTAGTCAGTCTCCACAG

Supplemental Figure 1



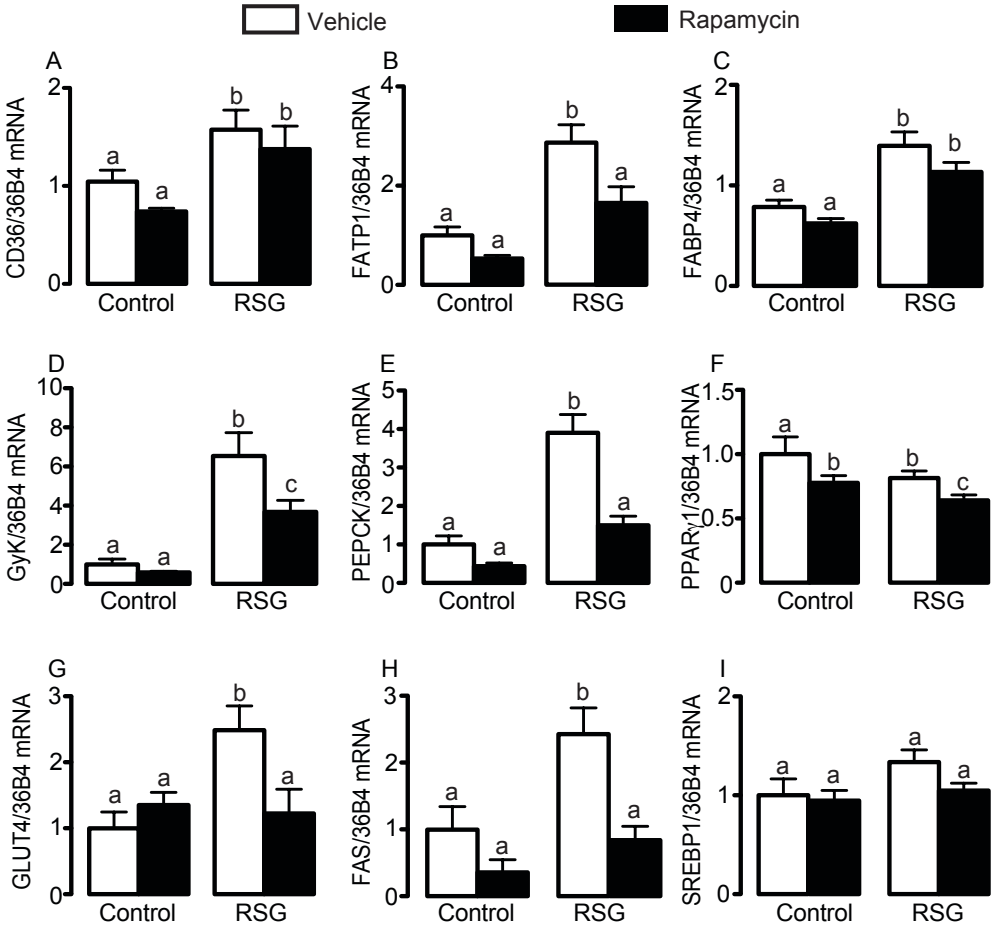
Supplemental Figure 1 – Adipose tissue ratios of phosphorylated and total Akt (Ser473), S6 (Ser235/236), and 4EBP (Thr37/46) in rats treated with rapamycin (Rapa) or rosiglitazone (RSG) for 15 days. n=3-4 for each group. Means not sharing a common superscript are significantly different from each other, $P<0.05$.

Supplemental Figure 2



Supplemental Figure 2 – Liver ratio of phosphorylated and total contents of S6 (Ser 240/244, Panel A), Akt (Ser473 and Thr308, Panels B and C) and AMPK (Thre172, Panel D) in rats treated with rapamycin (Rapa) or rosiglitazone (RSG) for 15 days. n= 4-6 for each group. Means not sharing a common superscript are significantly different from each other, $P<0.05$.

Supplemental Figure 3



Supplemental Figure 3 – mRNA levels of lipogenic proteins in retroperitoneal adipose depot of rats treated with rapamycin (Rapa) or rosiglitazone (RSG) for 15 days. n= 6-8 for each group. Means not sharing a common superscript are significantly different from each other, $P<0.05$.

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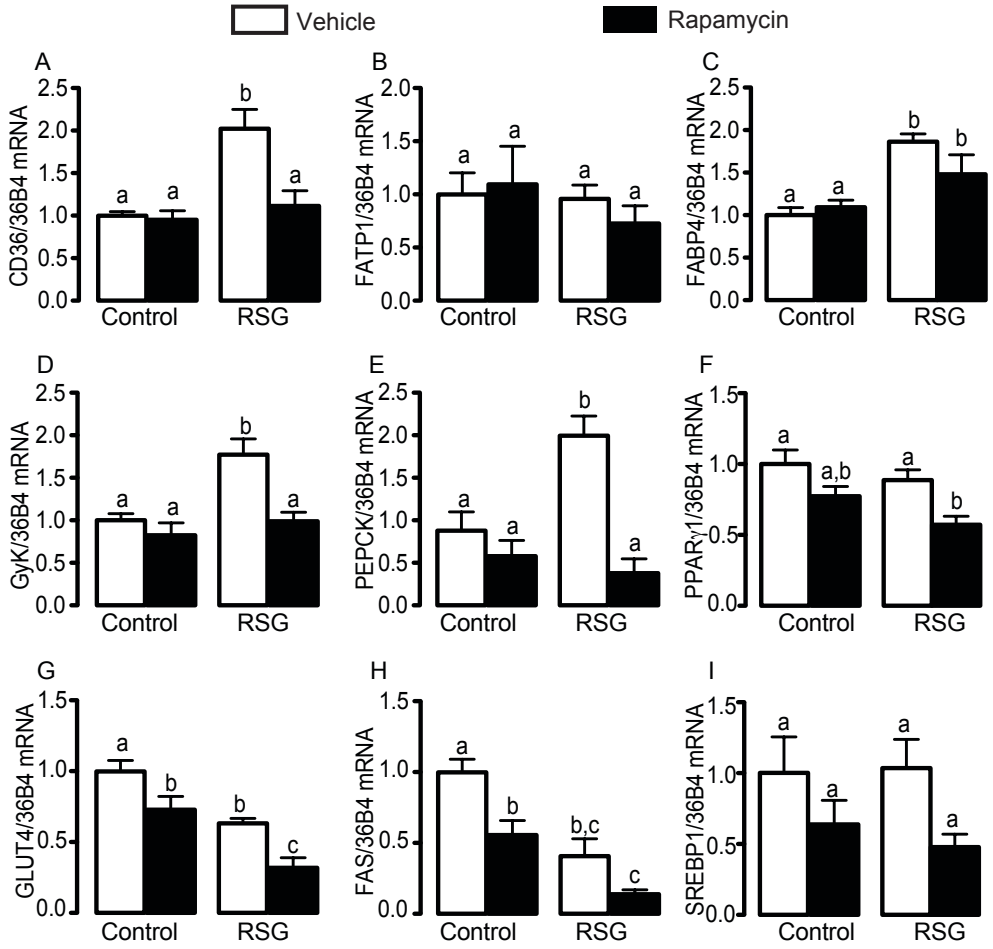
Supplemental Figure 4



Supplemental Figure 4 – mRNA levels of lipogenic proteins in brown adipose depot of rats treated with rapamycin (Rapa) or rosiglitazone (RSG) for 15 days. n= 6-8 for each group. Means not sharing a common superscript are significantly different from each other, $P<0.05$.

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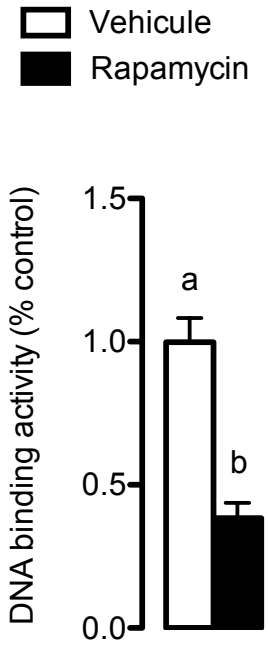
Supplemental Figure 5



Supplemental Figure 5 – DNA binding activity of PPARγ in inguinal adipose tissue of rats treated with rapamycin (Rapa) for 15 days. n= 7 for each group. Means not sharing a common superscript are significantly different from each other, $P<0.05$.

SUPPLEMENTAL METHODS

PPARγ transcriptional activity. PPARγ DNA binding activity was measured in inguinal adipose tissue as previously described by Petridou et al (1). Briefly, a sample of 150 mg of adipose tissue was homogenized manually on ice with a disposable pestle (Sigma-Aldrich, St. Louis, MO) in lysis buffer AM1 containing dithiothreitol (DTT) and a protease inhibitor cocktail (Active Motif, Carlsbad, CA). The homogenates were centrifuged at 14 000 x *g* for 30 min at 4°C, protein concentration in the infranatant (below the fat cake) was measured using a protein assay kit (BCA, Pierce, Rockford, IL), and 200 μg of protein were used for the PPARγ DNA binding activity assay according to the manufacturer's instructions (TransAM PPARγ, Active Motif, Carlsbad, CA). The specificity of the method was verified by the use of a wild-type consensus oligonucleotide as a competitor for PPARγ binding and a mutated consensus oligonucleotide. Addition of the former decreased the signal dramatically, whereas addition of the latter had no effect on the signal.

SUPPLEMENTAL REFERENCE

1. Petridou, A., S. Tsalouhidou, G. Tsalis, T. Schulz, H. Michna, and V. Mougios. 2007. Long-term exercise increases the DNA binding activity of peroxisome proliferator-activated receptor gamma in rat adipose tissue. *Metabolism* **56**: 1029-1036.